

IN THE CLAIMS

Please amend the claims as follows.

Claims 1-9 (Cancelled)

Please add new claims 10-44.

10. (New) An objective comprising a plurality of lenses, mirrors and at least one beam splitter element inserted in an objective housing, wherein one or more surfaces located in the beam path, of said beam splitter element are provided as correction aspherics.
11. (New) The objective as claimed in claim 10, wherein said beam splitter element is connected to manipulators that are arranged on a manipulator carrier which is permanently connected to the objective housing.
12. (New) The objective as claimed in claim 10, wherein provided as correction aspherics are an entry surface of said beam splitter element, an intermediate exit surface of said beam splitter element, located offset in relation to said entry surface, and a rear exit surface, as seen in the beam direction, of said beam splitter element.
13. (New) The objective as claimed in claim 12, wherein said beam splitter element can be tilted about at least two axes.
14. (New) The objective as claimed in claim 13, wherein the tilt axes intersect at a point.
15. (New) The objective as claimed in claim 14, wherein said point of intersection is located in the beam splitting plane of said beam splitter element in a central region in which the principal axis is located.
16. (New) The objective as claimed in claim 13, wherein said beam splitter element is tiltable about three axes, one of the tilt axes being located in the beam splitting plane, and the two other tilt axes each being located, offset by 90° in relation thereto, at an angle of 45° to the beam splitting plane.

17. (New) The objective as claimed in claim 11, wherein for the purpose of deformation decoupling of said beam splitter element an intermediate support on which said beam splitter element is arranged and on which said manipulators act, is provided.
18. (New) The objective as claimed in one of claims 10 to 17, wherein it is a projection objective for microlithography for producing semiconductor components.
19. (New) An objective comprising a plurality of optical elements inserted in an objective housing, and at least one beam splitter element, wherein said beam splitter element is provided with manipulators, and wherein one or more surfaces, located in the beam path, of said beam splitter element are provided for processing as correction aspherics.
20. (New) The objective as claimed in claim 19, wherein said manipulators are arranged on a manipulator carrier which is permanently connected to the objective housing.
21. (New) The objective as claimed in claim 19, wherein provided as correction aspherics are an entry surface of said beam splitter element, an intermediate exit surface of said beam splitter element, situated offset in relation to said entry surface, and a rear exit surface, as seen in the beam direction of said beam splitter element.
22. (New) The objective as claimed in claim 21, wherein said beam splitter element is tiltable by said manipulators about at least two axes (x,y).
23. (New) The objective as claimed in claim 22, wherein the tilt axes intersect at a point.
24. (New) The objective as claimed in claim 23, wherein said point of intersection is located in the beam splitting plane of said beam splitter element in a central region in which the principal axis is located.

25. (New) The objective as claimed in claim 22, wherein said beam splitter element is tiltable by said manipulators about three axes, one of the tilt axes (x) being located in the beam splitting plane, and the two other tilt axes each being located, offset by 90° in relation thereto, at an angle of 45° to the beam splitting plane.
26. (New) The objective as claimed in claim 20, wherein provided for the purpose of deformation decoupling of said beam splitter element is an intermediate support on which said beam splitter element is arranged and on which said manipulators act.
27. (New) A projection objective for microlithography for producing semiconductor components, comprising optical elements inserted in an objective housing, and at least one beam splitter element, wherein said beam splitter element is provided with manipulators, and wherein one or more surfaces, located in the beam path, of said beam splitter element are provided for processing as correction aspherics.
28. (New) The projection objective as claimed in claim 27, wherein said manipulators are arranged on a manipulator carrier which is permanently connected to the objective housing.
29. (New) The projection objective as claimed in claim 27, wherein provided as correction aspherics are an entry surface of said beam splitter element, an intermediate exit surface of said beam splitter element, located offset in relation to said entry surface, and a rear exit surface, seen in the beam direction of said beam splitter element.
30. (New) The projection objective as claimed in claim 29, wherein said beam splitter element is tiltable by said manipulators about at least two axes (x,y).

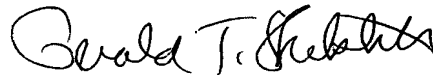
31. (New) The projection objective as claimed in claim 30, wherein the tilt axes (y,x,z) intersect at a point.
32. (New) The projection objective as claimed in claim 31, wherein said point of intersection is located in the beam splitting plane of said beam splitter element in a central region in which the principal axis is located.
33. (New) The projection objective as claimed in claim 30, wherein said beam splitter element is tiltable by said manipulators about three axes, one of the tilt axes (x) being located in the beam splitting plane, and the two other tilt axes (y, z) each being located, offset by 90° in relation thereto, at an angle of 45° to the beam splitting plane.
34. (New) The projection objective as claimed in claim 27, wherein provided for the purpose of deformation decoupling of said beam splitter element is an intermediate support on which said beam splitter element is arranged and on which said manipulators act.
35. (New) A system for correcting imaging aberrations in a projection objective for microlithography for producing semiconductor components, comprising a plurality of optical elements inserted in an objective housing, and comprising at least one beam splitter element, one or more surfaces, located in the beam path, of said beam splitter element being used as correction aspherics in such a way that if imaging aberrations are found said beam splitter element is removed, said one or more surfaces located in the beam path are processed, and said beam splitter element is subsequently reinstalled.

36. (New) The system as claimed in claim 35, wherein said at least one beam splitter element is provided with manipulators that align said beam splitter element in the objective housing.
37. (New) The system as claimed in claim 35, wherein the imaging accuracy of a projection beam is measured, and one or more surfaces located in the beam path are corrected by using the measurement result in the state with the objective housing removed, and said beam splitter element is subsequently reinstalled in the objective housing.
38. (New) The system as claimed in claim 37, wherein the correction method of said surfaces is carried out in a number of steps.
39. (New) The system as claimed in claim 35, wherein used as correction aspherics are an entry surface of said beam splitter element, an intermediate exit surface of said beam splitter element, situated offset in relation to said entry surface, and a rear exit surface, as seen in the beam direction of said beam splitter element.
40. (New) The system as claimed in claim 36, wherein said beam splitter element is tilted by said manipulators about at least two axes (x,y).
41. (New) The system as claimed in claim 40, wherein the tilt axes (y,x,z) intersect at a point.
42. (New) The system as claimed in claim 41, wherein said point of intersection is located in the beam splitting plane of said beam splitter element in a central region in which the principal axis is located.

43. (New) The system as claimed in claim 40, wherein said beam splitter element can be tilted by said manipulators about three axes, one of the tilt axes (x) being located in the beam splitting plane, and the two other tilt axes (y, z) each being located, offset by 90° in relation thereto, at an angle of 45° to the beam splitting plane.
44. (New) The system as claimed in claim 35, wherein provided for the purpose of deformation decoupling of said beam splitter element is an intermediate support on which said beam splitter element is arranged and on which said manipulators act.

Respectfully submitted,

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